

# Orford 40366, NH 25A over Brackett Brook Selectboard Meeting



December 12, 2018



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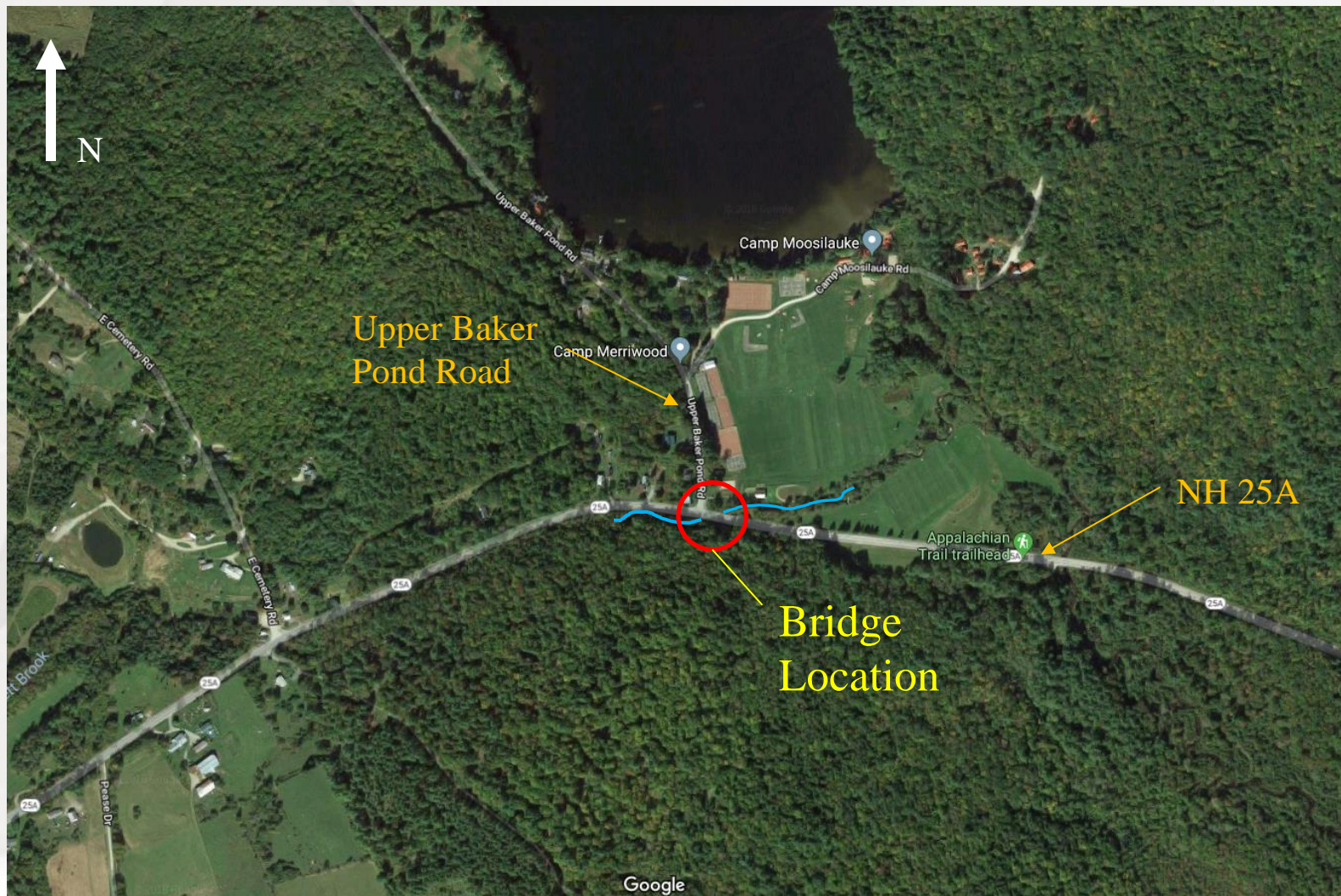


# Agenda

- Project Location
- Existing Conditions
- Natural & Cultural Resources
- Alternatives Analysis
- Construction Cost & Schedule
- Public Input
- Questions & Comments

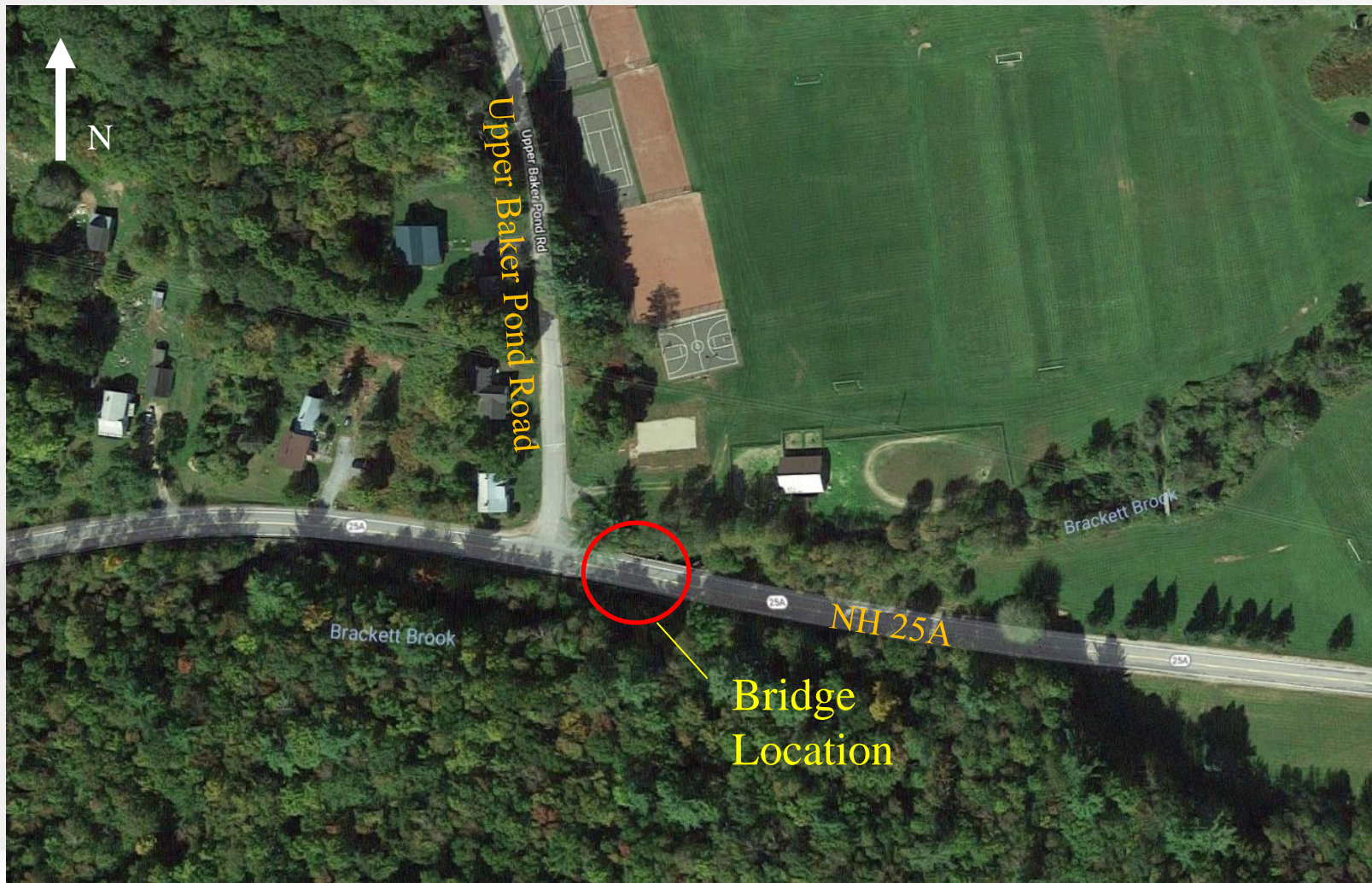


# Project Location





# Project Location





# Site Photos



NH 25A Looking East



Upstream Elevation



Downstream Elevation

# Existing Bridge

- 2-span reinforced concrete slab bridge
- Built 1929, widened 1979
- NHDOT inspection report lists superstructure in “poor” condition
- NHDOT Red List since 2013, priority #57
- Carries approximately 835 vehicles per day with 7% trucks
- 40 mph posted speed limit
- 54 mph 85<sup>th</sup> percentile speed



# Existing Condition



Downstream



Upstream Wall



Southeast Wingwall

# Natural & Cultural Resources

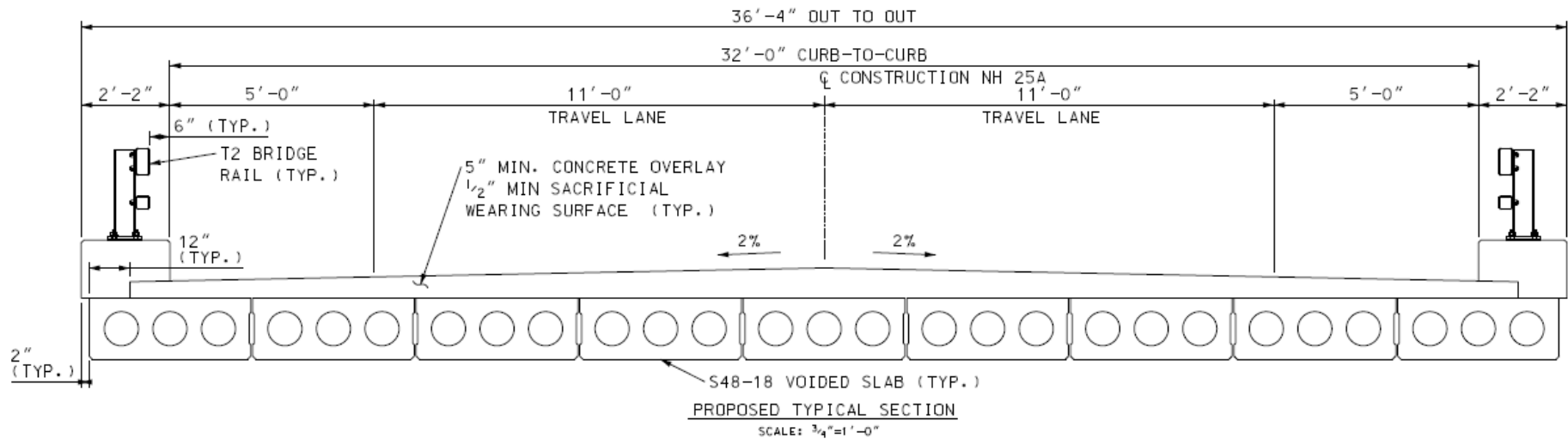
- Brackett Brook
  - “Tier 3” stream crossing
  - Major impact NHDES permit
  - Outstanding Resource Water
- Historic Resources
  - Bridge determined not eligible for National Register
  - Camp Merriwood & Camp Mossilauke
    - Potential historic resource



# Alternatives Analysis

- Rehabilitation (not feasible)
  - Bridge condition
  - Flooding concerns
- Replacement Options
  - Phased Construction
  - Accelerated Bridge Construction (ABC) with road closure

# Replacement Bridge



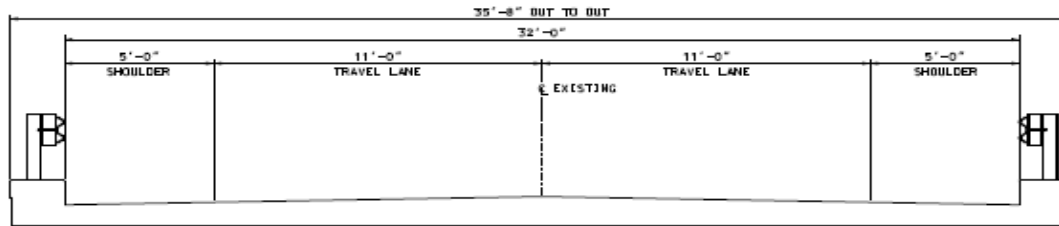
- 57-foot single span
- Prestressed voided slab with concrete abutments



# Phased Construction

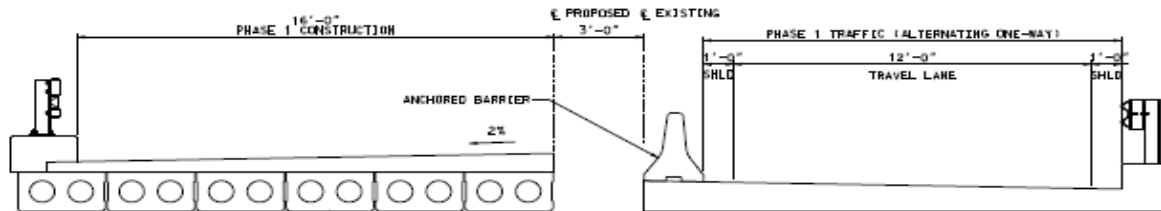
- Construct one half of bridge at a time
- Maintain one lane alternating traffic on NH 25A
- Permanent shift of road slightly to the north, towards Upper Baker Pond Road and the Camps
- Increases ROW impacts
- Longer construction duration

# Phased Construction



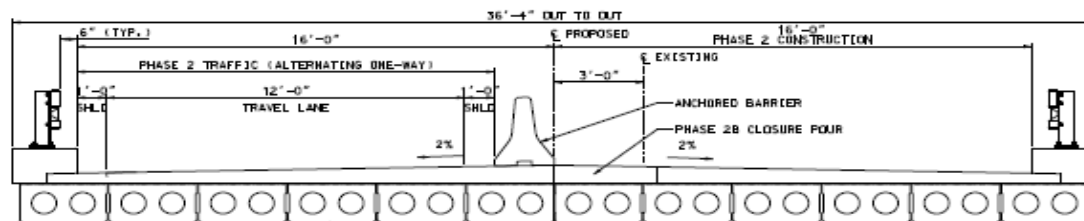
EXISTING TYPICAL SECTION

SCALE:  $\frac{3}{8}"=1'-0"$



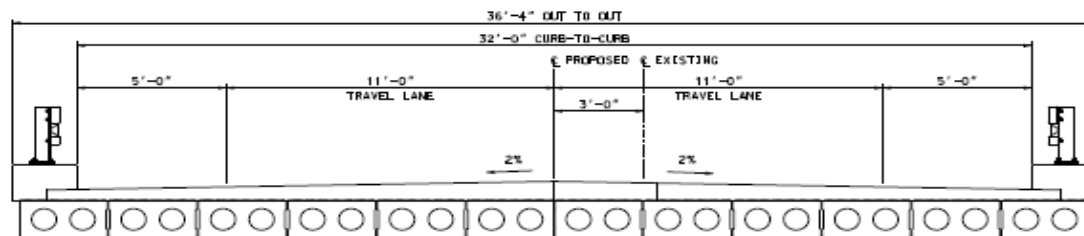
PHASE 1

SCALE:  $\frac{3}{8}"=1'-0"$



PHASE 2

SCALE:  $\frac{3}{8}"=1'-0"$



PROPOSED TYPICAL SECTION

SCALE:  $\frac{3}{8}"=1'-0"$



# Phased Construction

## Advantages

- No road closure

## Disadvantages

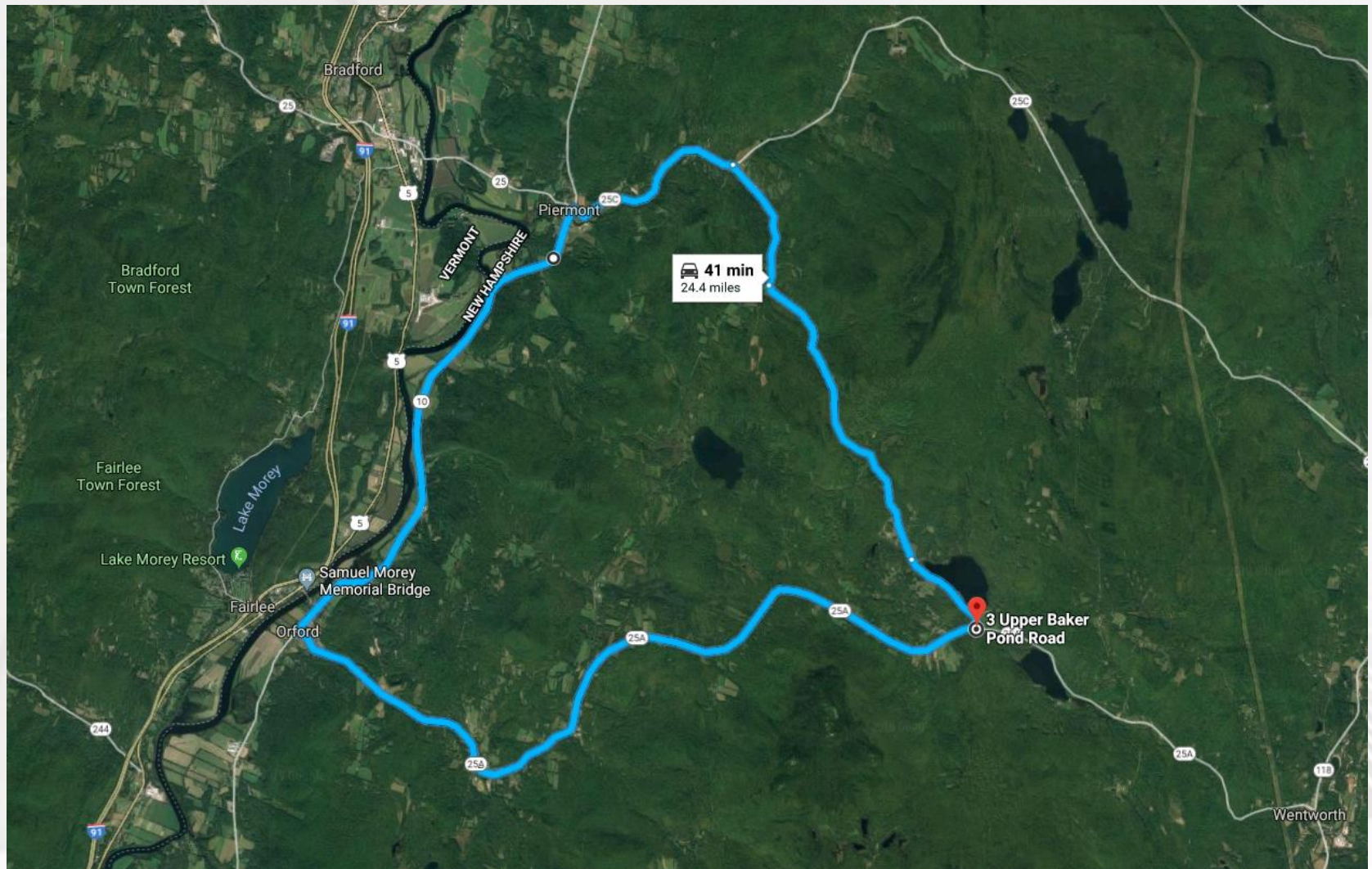
- Longer construction disruption
- Increased ROW impacts
- Less desirable traffic conditions due to speed and steep grade to the west
- Additional Construction Cost

# Accelerated Bridge Construction (ABC)

- 3 month closure using Accelerated Bridge Construction
- Signed detour (state routes) about 25 miles
- Local detour about 15 miles
  - Approximately 13 additional miles to NH 10
  - Approximately 16 additional miles to NH 25
- Camps have roadway/drive access to NH 25A on each side of bridge



# Signed Detour



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**DOT**  
Department of Transportation

# Accelerated Bridge Construction

## Advantages

- Minimizes ROW impacts
- Minimizes environmental impacts
- Safer
- Least amount of total construction disruption
- Lower Construction cost than Phased Construction

## Disadvantages

- Road closure

# Decision Matrix

	ABC	Phased Construction
Construction Duration	3 months	One construction season (7 months)
Detour	All Vehicles	None
Property Impacts	Minor ROW	Additional ROW for alignment shift 3 feet to the north
Community Impacts	Emergency response impacted No bus routes impacted	Emergency response impacted Bus routes impacted by one-lane alternating signal
Cost	\$2.1m	\$2.2m



# Your Input Is Needed

- Emergency response routes
- Mutual aid to/from adjacent towns
- School bus routes
- History of flooding
- Bridge closure timing
- Interaction with Camp Moosilauke & Merriwood
- Other concerns

# Next Steps

- Develop and Evaluate Bridge Alternatives
- 1<sup>st</sup> Public Informational Meeting (Late Winter 2019)
  - Present Findings of Alternative Analysis
  - Present Preferred Alternative
- Complete NEPA Process (National Environmental Policy Act) for Environmental Clearances
- Develop Preliminary and Right-of-Way Plans
- Develop Contract Plans and Documents
- Construction Starts hopefully in 2021

# Project Schedule & Estimate

- Formal Public Hearing – Fall 2019
  - Final Design – 2020
  - Secure needed ROW - 2020
  - Advertise Project - 2020
  - Construction - 2021
- 
- Estimated Construction Cost - \$2.1 million or \$2.2 million



# Questions/Comments



## Thank You For Attending



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